

REMARKS/ARGUMENTS

By this paper, Applicant responds to the Office Action of January 26, 2006 and respectfully requests reconsideration of the application. A Petition for Extension of Time extends time to respond through May 26, 2006.

Claims 1-33 are now pending, a total of 33 claims. Claims 1 and 19 are independent.

Claims 1 and 19 are amended. In view of agreements reached in the telephone interview of March 2006 in 09/330,852, all statutory objections to the application are withdrawn. The only requirement outstanding against the application is non-statutory. The amendments are not “narrowing” to surrender subject matter; rather, they are directed to an entirely different aspect of the invention.

I. Double Patenting

The claims as now amended obviate any double patenting issue.

II. Claims 1 and 19

Claim 1 recites as follows:

1. A method, comprising:

during a profiled interval of an execution of a program on a computer, recording profile information describing the execution, the program being coded in an instruction set in which instructions are not all of the same length, and in which the length of an instruction depends on a processor mode not expressed in the binary representation of the instruction,

the recorded profile information containing information sufficient to permit, without reference to the binary representation of the program, reliable inference of the address of the last byte of a multi-byte control transfer instruction.

Claim 1 distinguishes Heisch '033 for at least the following reason.

At col. 2, lines 47-50, Heisch '033 states that his preferred embodiment relates to the PowerPC. As is well-known in the art, PowerPC instructions are all 4 bytes long. Thus, if Heisch were ever to need the address of the last byte of an instruction,¹ the address of the last byte can always be found by adding 3 to the address of the first byte of the instruction.

¹ The portions of Heisch '033 indicated in the Office Action contain no indication that Heisch '033 ever does need the address of the last byte of an instruction.

In contrast, the invention of claim 1 is directed to profiling variable-length instruction sets (“an instruction set in which instructions are not all of the same length”), in which the length of an instruction can “depend[] on a processor mode.” Finding the address of the last byte of an instruction is hard in such a processor. Claim 1 recites that sufficient information is stored in the profile information to permit “reliable inference of the address of the last byte of a multi-byte control transfer instruction.” This problem is not even recognized in Heisch '033, let alone the solution recited in claim 1.

Claim 19 recites similar language and is patentable for similar reasons.

The dependent claims are patentable therewith.


III. Conclusion

In view of the amendments and remarks, Applicant respectfully submits that the claims are in condition for allowance. Applicant requests that the application be passed to issue in due course. The Examiner is urged to telephone Applicant's undersigned counsel at the number noted below if it will advance the prosecution of this application, or with any suggestion to resolve any condition that would impede allowance. An Petition for Extension of Time extends time for one month. In the event that further extension of time is required, Applicant petitions for that extension of time required to make this response timely. Kindly charge any additional fee, or credit any surplus, to Deposit Account No. 23-2405, Order No. 114596-09-4016.

Respectfully submitted,

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Dated: May 5, 2006

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references, pertinence is mentioned in the respective application file in which the reference came to light. Applicant has not reviewed all of them in detail. Of those that have been reviewed, none of the references are believed to be any more pertinent than the references provided in earlier IDS' and Forms 1449. However, in an abundance of caution, Applicant requests that they be considered.

3. Pursuant to 37 C.F.R. § 1.98(d), for items other than U.S. patents and U.S. patent applications listed on the enclosed Form PTO-1449 for which a copy is not already made of record in this application, a copy was previously cited by or submitted to the Patent and Trademark Office in application Serial No. 09/239,194, filed January 28, 1999, Yates et al., Executing Programs for a First Computer Architecture on a Computer of a Second Architecture, in application Serial No. 09/322,443, filed May 28, 1999, Reese et al., Profiling of Computer Programs Executing in Virtual Memory Systems, or in application Serial No. 09/385,394, filed August 30, 1999, Yates et al., Computer for Executing Two Different Instruction Sets.

4. Several of the references (including the Dean, three Intel, Jones, Magnuson, and Mueller references) have been previously cited. They are cited again here with improved bibliographic information.

5. This Information Disclosure Statement is being filed more than three months after filing of this application and after the mailing of a first Office Action on the merits, but before the mailing date of a final action under 37 C.F.R. § 1.113, or a Notice of Allowance under 37 C.F.R. § 1.311 (where there has been no prior final action), or an action that otherwise closes prosecution in the application. A fee is due pursuant to 37 C.F.R. §1.97(c)(2).

6. Charge the fee due under C.F.R. §1.17(p) to Deposit Account 23-2405, Order No. 114596-09-4016. The Commissioner is hereby authorized to charge any additional fees that may be required for this Information Disclosure Statement, or credit any overpayment, to Deposit Account No. 23-2405, Order No. 114596-09-4016.

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